NARUS

Broadband Cable

MediaOne Deploys NARUS' Internet Business Infrastructure Solutions

O V E R V I E W

Challenge:
- *Analyze the RoadRunner cable Internet access service to better understand how subscribers are using the network, which services are most popular, and to measure the quality of the subscriber's experience*

Solution:
- *Deploy NARUS IBI solutions to take intelligent action to define and deliver new services, manage them effectively, and capture their value*

Business Benefits:
- *Ability to collect, process, and apply customer usage information, in real time*
- *Over 90 pre-defined, easy to use, graphical reports detailing how customers are using applications and services for the purposes of defining new services, eliminating abuse, and identifying new revenue opportunities*
- *No impact on network performance*
- *Scalable and configurable to accommodate RoadRunner's rapidly growing network*

Background

MediaOne, now merged with AT&T Broadband®, is a leading broadband service provider. This broadband services leader delivers high-speed Internet access to more than 220,000 of its 5 million cable-TV subscribers, and expects to double that number by the end of 2000. MediaOne is currently engaged in a massive upgrade of its nationwide Hybrid-Fiber Coaxial (HFC) network, scheduled for completion during the end of 2000. Upon completion, MediaOne should be able to offer cable modem Internet access service — as well as digital TV, and voice telephony—to nearly 28 million homes in 17 states.

MediaOne wants to better understand how subscribers are actually using the RoadRunner Service. The ultimate objective is to improve the customer experience by fine-tuning the service and network in accordance with actual customer behavior. Subsequently, MediaOne is seeking the answers to several fundamental business questions:

- Which Internet activities are the most popular, and do they differ by region?
- Which Internet applications—e.g., e-mail, Web browsing, VoIP—consume the most bandwidth relative to their frequency of use?
- Where do network bottlenecks occur?
- When will upgrades be needed?

With this information, MediaOne can forecast network build outs, define new service offerings, and create flexible billing and pricing plans.

The Challenge

MediaOne Labs investigated RMON II (Remote MONitoring, version II) as a way to get more transactional information off the network. In capacity planning tests, MediaOne Labs implemented one-minute polling of these agents and other RMON probes already in the RoadRunner network. The tests introduced additional traffic into the network, and the probes did not offer granular enough information to understand any more than the amount of bytes flowing on the network. For the data analysis MediaOne wished to do, they needed to understand more about the transactional and application levels of the data itself.

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Tom Cullen
Vice President of Internet Services

The Solution

MediaOne looked at NARUS Internet Business Infrastructure (IBI) solutions, with its Semantic Traffic Analysis (STA) platform, and discovered a whole new class of technology. STA makes use of network appliances called NARUS Analyzers that are installed at strategic points around the network and gather detailed network and customer-usage information in real time, without impacting network performance. The data is sent to NARUS LogicServers, which aggregate the information and make it available to billing systems, customer care applications, and other components of a service provider's operational and business support systems (OSS/BSS).

MediaOne®

"The NARUS solution was attractive to us because it could passively pull detailed customer usage data right off the wire, without interfering with the network," says Monica Marics, Director of Broadband Innovation at MediaOne's Labs. Tom Cullen, vice president of Internet services at MediaOne, expects the usage data to give his company a strategic edge. "NARUS IBI solutions give us a richer understanding of what services best fit the needs and interests of our customers. Such information will help us make the best decisions about how we deliver our current service and what new options we can deploy. Ultimately, this will benefit our customers by ensuring that they get the most out of our network's capabilities."

Business Benefits

MediaOne decided to deploy the NARUS IBI in three stages. In the first phase, NARUS Analyzers were installed in 10 of the HFC head-ends in the RoadRunner Network – five in the northeastern United States and five in the western region of the United States. The NARUS Analyzers reconstruct the traffic in real time, based on an application-level understanding of the IP traffic. The results are sent to a NARUS LogicServer at the MediaOne Labs in Denver. The NARUS LogicServer aggregates and correlates the usage data before passing it to NARUS Intelligence, a powerful decision support application that will enable MediaOne to understand how customers use their services.

The MediaOne staff will use NARUS Intelligence to ultimately provide a cross-regional understanding of the health of the MediaOne Roadrunner network, an analysis of customer usage patterns, and provide a business infrastructure that allows them to enable advanced billing, customer care activities, and fraud detection, in real time. NARUS Intelligence provides MediaOne with over 90 pre-defined reports that identify new revenue opportunities, detect fraud and abuse, understand shifting user preferences, and better define and target new service offerings.

Another 20 analyzers are planned for in the northeast and western regions in phase two of the implementation, and the NARUS IBI will be scaled across the entire RoadRunner network in phase three.

Marics is pleased with the responsiveness of the NARUS team. "NARUS is interested in our feedback and acts on it," she states. Marics also appreciates the flexibility of the NARUS Intelligence application. "NARUS constructed the report software well," she concludes. "It allows us to customize based on our operational and business needs."

With NARUS IBI solutions, MediaOne is well poised to grow their business and intelligently define new services, manage them effectively, and capture their value.

NARUS Solution deployment for Multiple Service Operators